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United States Environmental Protection Agency

Office of Solid Waste and Emergency Response (OS-120)

September 1990
OSWER-90-006.3
Series 6, No. 6

EPA

Successful Practices in Title III Implementation

Chemical Emergency Preparedness and Prevention Technical Assistance Bulietin

State of Ohio
Hamilton County, Ohio
Wallingford, Connecticut
Oauchita Parish, Louisiana

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ABOUT THIS BULLETIN

This is another in a series of bulletins EPA is issuing to provide examples of implementation programs and strategies of the Emergency Planning and Community Right-to-Know Act of 1986, known as Title III, that are innovative or have proven effective. The purpose of these bulletins is to share information on successful practices with Local Emergency Planning Committees (LEPCs), State Emergency Response Commissions (SERCs), fire departments, and other Title III implementing agencies throughout the country in the hope that such information will prove useful to other SERCs and LEPCs as their programs develop and evolve.

Elements from the programs featured here may be transferable to other programs in similar communities or with similar situations. The bulletins provide information on a variety of practices — for example, planning, compliance, information management, hazard analysis, and outreach. The particular topics covered in each LEPC or SERC profile are listed at the upper right hand corner of the first page of the profile for easy reference.

The descriptions of the innovative and effective implementation programs and strategies are not exhaustive. They are meant to provide readers with enough information to determine if a particular approach is applicable to their own situation. Each profile includes a contact person who can provide more detailed information.

If you know of Title III implementation efforts that you feel would be of interest to others, please contact your EPA Regional Chemical Emergency Preparedness and Prevention coordinator (see list on the last page) or the Emergency Planning and Community Right-to-Know Information Hotline at 1-800-535-0202, or, in Washington, DC, 479-2449.

Planning
Data Management
Outreach
Funding
Section 313 Implementation

STATE OF OHIO

SERC Membership:	19 members, including representatives from the Departments of Health and Industrial Relations; Attorney General's and State Fire Marshall's Offices; Emergency Management Agency; Environmental Protection Agency; Industrial, Public Utilities, and State and Local Government Commissions; the State House and Senate; industry and trade associations; environmental groups; county commissioner's association; three fire service associations; and an elected municipal official; chaired by the Ohio EPA
State Characteristics:	87 LEPCs, 86 are single-county districts and one is a two-county district

Executive Order 87-16 established the Ohio SERC on April 15, 1987, and the SERC has established five subcommittees: executive, planning and exercises, procedural rules, training, and LEPC membership. Ohio Substitute Senate Bill 367, which became effective December 14, 1988, establishes chemical emergency preparedness and prevention activities to support implementation of the Emergency Planning and Community Right-to-Know Act (Title III of the Superfund Amendments and Reauthorization Act of 1986). There are also local right-to-know laws, subject to grandfather clauses in the state law, in the communities of Akron, Cleveland, Cincinnati, Canton, Lancaster, Kent, Morwood, Oregon, Toledo, and Columbus.

SERC ACTIVITIES

Planning. The Ohio Emergency Management Agency (EMA) is responsible for the review of local emergency response plans. Plans are submitted to Ohio EMA, which formally reports its evaluation and comments to the SERC. Ohio Code requires that a plan must be designated as deficient if any of the thirteen state planning requirements are not addressed. These requirements were adopted and expanded by the state of Ohio from the National Response Team's Hazardous Materials Emergency Planning Guide (NRT-1) and elements of Title III. Ohio EMA prepared a *Guidance for Submitting Plans and Updates* to assist LEPCs by identifying what needs to be submitted for initial plans, updates, and the correction of deficient plans, as well as who must receive a copy of these materials. Ohio EMA presented nine training sessions in August and September of 1990 on hazards analysis based on the EPA/FEMA/DOT Technical Guidance for Hazards Analysis, the Computer-Aided Management of Emergency Operations (CAMEO) software system, and the IBM-compatible Automated Resource for Chemical

Hazard Incident Evaluation (ARCHIE) software system to assist local emergency planners in the preparation of plans.

Ohio EMA conducts its review of local plans using NRT-1 and a *Hazardous Materials Plan Cross Reference*, which Ohio EMA developed directly from NRT-1. The *Cross Reference* is an outline which the LEPC is requested to submit along with its plan. It identifies the location of the planning elements and considerations listed in NRT-1, which were adopted as guidelines by the SERC, within the plan itself. The *Cross Reference* thus serves as an indexed checklist for the reviewers of the essential plan components, and assists the LEPC in developing their Title III plan. Ohio EMA also uses this detailed *Cross Reference* to comment on planning elements during plan review.

State planning and exercise rules require each Ohio LEPC to carry out three exercises within each three year period, including at least one full-scale and two table-top, functional, or full-scale exercises. LEPCs must submit a notification to the SERC and Ohio EMA thirty days prior to any hazardous materials exercise. A form has been developed to simplify this procedure for the LEPCs and to assist the SERC in evaluating the exercise. The SERC, through Ohio EMA, has designated five planners to assist the state's 87 LEPCs. Ohio EMA has provided exercise facilitator training for the state agencies who will evaluate LEPC exercises for the SERC.

The Ohio Revised Code also required the Ohio SERC to prepare a separate hazardous materials emergency plan for the state; the plan as compiled by Ohio EMA identifies responsibilities for 26 Ohio agencies in the event of a hazardous materials event. Ohio EMA developed and then conducted a functional exercise to evaluate the state plan on August 1, 1990. The state exercise was a joint exercise with all state agencies located at the Ohio EMA offices, as well as the Montgomery/Greene County/Miami Valley LEPC and the Monsanto Agricultural Company at the Monsanto plant in Dayton, Ohio.

Data Management. Ohio EPA is responsible for Title III data management under state law. Ohio EPA's Division of Emergency and Remedial Response is responsible for collecting and maintaining sections 302, 304, and 311-312 information. The state recommends the submission of chemical lists instead of MSDSs if more than ten chemicals are being reported. The state also requires Tier II information under section 312. The SERC developed and adopted a more comprehensive industry reporting form for sections 311 and 312 submissions. A facility identification form requests data on the facility's latitude and longitude, state permit numbers, number of employees, and phone number of the local fire department. The revised Ohio sections 311-312 form requests specific storage locations (i.e., floor and sector of the building) of the on-site hazardous chemicals. Ohio also requires a facility map which correlates to the information submitted on the state sections 311-312 form.

Outreach. In order to maintain the critical ties between state and local Title III entities, the SERC is planning to develop a technical assistance and guidance program for LEPCs. The program would develop a series of guidance manuals and cassette tapes on selected Title III topics — *What is*

Title III, Starting an LEPC, Role of Elected Officials in Title III, Role of LEPC Members — to support a more consistent and coordinated Title III effort state-wide. The materials would be distributed to the LEPCs and would enable new LEPC members to get up to speed more quickly and clarify questions for existing LEPC members. Finally, the SERC has developed a training and outreach program for LEPC members on achieving Title III compliance that is to be presented at five locations in Ohio during September of 1990.

Funding. Ohio's enabling legislation provides a flat fee of $50 for facilities which have no EHSs, no more than ten hazardous chemicals, and less than 500,000 pounds or 74,000 gallons of hazardous chemicals. A fee of $75 plus $5 for every hazardous chemical beyond ten up to a maximum of $2,500 is charged to all other facilities. Oil and gas extracting companies are charged $10 dollars per tank battery storage location over thirty-five, with a cap of $700. In addition, there is a 15 percent late fee for filing past the section 312 deadline. These fees are submitted to Ohio EPA and deposited in a state Right-to-Know grant fund — $328,000 during 1989 and $692,000 during 1990. State law requires that 15 to 25 percent be provided to state agencies on the SERC, 60 to 75 percent be handed out as grants for LEPC activities, and 5 to 15 percent be provided as grants for first responder training -- these training funds are to be coordinated between the fire department and their county-designated LEPC. The state legislature appropriated approximately $580,000 from July 1, 1987, to June 31, 1990, from general revenues for Ohio EPA to fund the operations of the SERC.

TOXIC RELEASE INVENTORY PROGRAM

Section 313 Implementation. S.B. 367 authorized the establishment of the Ohio Section 313 Toxic Release Inventory (TRI) program. The law gave Ohio EPA the authority to pass rules necessary to enforce section 313 consistent with federal regulations, to collect filing fees which will support the administration of the program, and to collect civil and criminal penalties from facilities and individuals failing to report or falsifying data. Thirteen rules were developed by Ohio EPA's Division of Air Pollution Control (DAPC), and were effective as of June 22, 1989. TRI data for reporting years 1987 and 1988 are already in the state database; reporting year 1989 data are currently being entered and should be complete by the fall of 1990. Ohio EPA received over 5,900 forms from over 1,500 companies in 1990.

A formal policy has been created to fulfill public requests for this information. Written requests are filled within 10 working days, except in the case of large requests, which may require more time. The standard copying fee of $0.20/page will be charged, although computer-generated reports are provided free of charge. The TRI data files are also available for public inspection, under supervision, during normal business hours — appointments can also be made upon request.

A section 313 network has been established comprised of representatives from each Ohio EPA division and the Ohio Department of Health to provide a forum for addressing TRI right-to-know issues. The network reviews the concerns of citizens and identifies which forms are

being requested by the public. During the announcement of the initial availability of the TRI database, the network met primarily to discuss public information requests from citizens and public interest groups; at the present time, the emphasis is shifting to maximizing effective use of TRI data by state agencies, such as for prioritizing air toxics and ground water quality activities and in preparing grant applications.

The primary concern of the DAPC at this time is enforcing compliance with section 313. Ohio DAPC and Resource Conservation and Recovery Act (RCRA) permit-holders have been sent information on section 313 and a section 313 survey, which upon completion becomes part of the facility's file. Ohio EPA has co-sponsored three seminars with the US EPA Regional Office for industry on the section 313 reporting requirements. At the request of trade and professional organizations, Ohio EPA has also participated in section 313 workshops to provide information to the regulated community.

The Form R report serves as the starting point for the compliance and enforcement initiatives. First, every section 313 submission is reviewed for completeness. This administrative review focuses on clerical reporting errors, and notices are sent to those facilities submitting incomplete reports. The second phase is a review of the accuracy of the forms — current air permit records and RCRA generator lists are cross-referenced with section 313 reports to evaluate the accuracy of the release estimates. Once again, facilities will be contacted if questions arise concerning their estimations. The third element in the program is a series of section 313 audits of reporting facilities. Select facilities are audited to review how Form Rs were completed and how release estimates were calculated.

The enforcement initiative also includes an inspection program for non-reporting facilities. Facilities have been identified primarily from RCRA and air permitting records, although DAPC is coordinating with other Ohio EPA divisions to identify further non-reporting facilities. The facilities first receive a written notice of inspection, approximately two weeks before an inspection. Inspections (30 have been conducted) and subsequent legal enforcement action (seven have been initiated) will be carried out if necessary. DAPC personnel have also visited paint manufacturers to insure that MSDS information is being prepared and provided to their customers as required under the section 313 supplier notification requirements.

Under the Ohio Code, the owner or operator of a facility is liable for civil penalties of up to $25,000 per day for non-compliance with section 313. In order to insure consistent enforcement, Ohio EPA has developed a formal policy detailing various options for dealing with these facilities, including issuance of a compliance order or requesting action from city, county, or state prosecutors. In addition, Ohio EPA has developed distinct enforcement alternatives for each type of violation: late reporting (following a one-month grace period), administrative (clerical) errors, technical (release estimation) errors, filing false information, and supplier notification (identifying the presence of a toxic chemical in a mixture, its concentration, and the relationship to section 313 reporting obligations).

DAPC section 313 activities became self-sufficient with the implementation of filing fees in fiscal year 1990. The program is now fully funded by a fee system which provides a staff of two engineers, one clerical position, and one intern for data entry. Each facility reporting under section 313 is required to submit $50 plus $15 per Form R submitted, not to exceed $500 per facility. There is also a 15 percent late fee for facilities which submit after expiration of a 30-day grace period. In 1988, Ohio EPA had $65,000 to implement the program. For fiscal year 1989, the program was budgeted $65,000 and over $160,000 in filing fees was collected for 1989 reporting. It is estimated that $150,000 will be generated through the filing fees in fiscal year 1990.

LESSONS LEARNED

It's Not Over. The SERC is developing a number of projects for the near future to re-establish important connections and dialogue between itself and Ohio LEPCs. In the first days after Title III was passed, there was considerable enthusiasm in the state for the new program, but this has since diminished due to funding difficulties. The SERC hopes to develop an LEPC recognition program to support and encourage increased Title III activities and to serve as a method to publicize LEPC efforts within the state.

Effective Outreach Creates a Positive Atmosphere. The Division of Air Pollution Control at Ohio EPA has made a concerted effort to maintain a high level of outreach to facilities subject to reporting under section 313. By contacting facilities that received Ohio air and RCRA permits, the DAPC was able to identify a number of smaller facilities previously unaware of the requirements of section 313, and survey them to identify which of these facilities were obligated to submit Form Rs. In addition, the DAPC annually contacts facilities who have filed under section 313 during the previous years to remind them of the reporting requirements. This effort has produced a positive environment in which the Ohio EPA is viewed as helping facilities comply with Title III, rather than simply enforcing penalties.

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Hazards Analysis
Planning
Exercises
Data Management
Outreach
LEPC Organization
Prevention
Compliance

HAMILTON COUNTY, OHIO

LEPC:	35 full-time appointed members and 70 volunteers, including representatives from local government, law enforcement, emergency management, local fire departments, first responders, health organizations, hospitals, local enviromental and community groups, transportation, Red Cross, and covered facilities,who provide expertise for the various LEPC subcommittees
Population:	850,000
Facilities:	130 facilities reported for section 302 including large chemical manufacturers and small gas stations

Hamilton County is located in southwestern Ohio and borders the states of Kentucky and Indiana. The county is composed of 49 separate political jurisdictions, including the city of Cincinnati, and contains many major transportation routes including several interstate highways, major railroad systems, and the Ohio River.

The LEPC has formed eight subcommittees to handle the following subject areas: plan oversight, hazard analysis, training, hazardous materials exercises, technical interpretation, data management, public and media relations, and membership nominations. Each subcommittee fulfills its responsibilities utilizing experts drawn from the community applicable to the subject area; for example, a representative from the local television station serves on the public and media relations subcommittee.

LEPC ACTIVITIES

Hazards Analysis. The LEPC decided a detailed hazard assessment of the chemicals, particularly extremely hazardous substances (EHSs), was necessary to provide a focus for emergency planning in the community. A technically-oriented LEPC subcommittee was assigned the task of identifying facilities and substances that posed the most serious threat to the community. This assessment will serve as the primary means for the LEPC to revise its emergency plan annually .

Section 302 reports indicated that 130 facilities in the county use EHSs, and the LEPC sent these facilities a comprehensive survey which requested information on facility location, emergency notification and communications systems, emergency equipment and personnel resources,

chemical-specific storage and transport, spill prevention and control, hazardous waste management, and contingency planning. As this information was being collected, the subcommittee decided to focus the hazard assessment on a small list of chemicals rather than on the entire EHS list so that emergency planning could address the hazards most immediately dangerous to the community.

The list was narrowed based on each substance's physical state, acute toxicity, reactivity, and explosive potential. For example, compressed gases and volatile liquids were considered more hazardous to the community than inert solids. In addition, hazardous chemicals subject to sections 311-312 reporting were also evaluated to determine if some were as hazardous and also needed to be included. Principle factors in this decision were a National Institute of Occupational Safety and Health (NIOSH) Immediately Dangerous to Life and Health (IDLH) level at or below 100 ppm and spill records from EPA's Acute Hazardous Events Database. This screening of EHSs and other hazardous chemicals produced a list of 85 substances, and after cross-checking with facility section 302 submissions, the subcommittee identified 74 facilities where 20 of these substances were present.

The subcommittee then further reviewed these facilities' sections 311-312 submissions to identify the maximum and average range of the substances present on-site and to conduct preliminary dispersion modelling. This was done to identify 10 facilities of primary concern. These facilities serve as the initial phase of the program, which will be completed later this year. Upon completion, the subcommittee will begin to analyze the hazards posed by other facilities with significant quantities of EHS and other hazardous chemicals. In addition, the LEPC plans to begin work on hazards analysis for transport of hazardous chemicals in the near future.

As a pilot program, the subcommittee decided to request ten selected facilities to assist the LEPC in performing a detailed hazards analysis for these substances. A letter was sent to each facility along with a copy of the Technical Guidance for Hazards Analysis, requesting that the facility conduct the analysis pursuant to the authority of section 303(d)(3). The facilities were also provided with a simple worksheet for conducting a vulnerability zone and risk analysis for specified release scenario(s). The results of the risk analysis section of the submitted worksheets indicated that some facilities had underestimated both the probability and severity of the potential release. (Even though the vulnerability zone analyses indicated that several facilities could potentially affect a ten-mile radius in populated areas, this was not reflected in the risk analyses.)

To correct this situation, the subcommittee developed a two-page risk analysis evaluation form to serve as the basis for a more quantitative estimate. The evaluation form asked a series of questions specifically designed to evaluate first the likelihood of an incident and secondly, the severity of the consequences. Each question was to be answered with one of three provided responses (i.e., choose A, B, or C). A certain number of points were assigned to each response. When totalled, the number of points corresponds to a scale which translates the number into a measure of the likelihood and severity of an incident. For example a score of 16-24 points in the "Likelihood of Incident" portion of the form corresponds to a "Medium Likelihood" that the event will occur.

The questions pertaining to the likelihood of the event included areas such as contingency planning, storage facilities, monitoring and inspection procedures, history of leaks and spills, location of storage tanks, and employee hazardous materials awareness. The questions pertaining to the severity of the consequences covered areas such as the population within the vulnerable zone estimated by the facility, the capabilities of on-site and local response personnel, the anticipated property damage, and the expected environmental effects.

Planning. The Hamilton County Office of Emergency Management and Civil Defense is primarily responsible for coordinating the LEPC's planning efforts. This office had in place an approved Emergency Operations Plan (EOP), required by the Federal Emergency Management Agency, at the time of the enactment of the Emergency Planning and Community Right-to-Know Act (also known as Title III) and used it as the basis for the LEPC plan. The EOP was closely examined with respect to the Title III emergency plan requirements using the Hazardous Materials Emergency Planning Guide (also known as NRT-1), which was adopted as the LEPC's official planning guide.

The planning efforts of the LEPC have also been assisted by Hamilton County's Disaster Planning and Coordinating Council. The Disaster Council, formed in 1962 under the auspices of Civil Defense, has provided first response and planning organizations a forum for the exchange of ideas, expertise, knowledge of resources, plans, and limitations of each organization prior to a disaster.

The LEPC sent every facility that reported under section 302 and every local fire department with jurisdiction over a covered facility an extensive questionnaire requesting facility specific emergency planning information, such as emergency contacts, the jurisdictional police department, characteristics of the surrounding community, emergency response capabilities, and the names and quantities of the chemicals stored on-site. The questionnaire instructs the facility emergency coordinator to meet with the local fire department to jointly fill-out the information. The questionnaire has proved successful in prompting initial and continued face-to-face contact between the facility, the local fire department, and the LEPC.

Exercises. The Hamilton County LEPC uses table-top, functional, and full-scale field exercises to test their emergency plan. A table-top exercise was conducted in January 1990 and consisted of examining a chemical release within the city limits of Cincinnati. Although the release was limited to the city boundaries, personnel from bordering counties also participated. The focus of this exercise was to test the basic provisions of the emergency plan: first responder coordination, communication procedures, and the roles of the different authorities involved. The table-top exercise identified weaknesses in the existing plan that have since been corrected. Lines of emergency communication have been better defined for more effective information dissemination both during and following an incident. The precise roles of the different authorities involved in a response have also been better defined as a result of the exercise.

Currently, a full-scale field exercise is being coordinated for May, 1991. The Monsanto Ports Plastics facility, in Addyston, Ohio, has volunteered to serve as the incident site. The exercise will involve a chemical release from a tank car into the Ohio River. Such an incident will require multi-jurisdictional coordination between various local emergency planning districts and will include the US Coast Guard. The exercise was formulated to test the mutual aid provisions of the emergency plan, the role of the LEPC in an emergency, and the coordination of emergency response personnel, and will involve local fire and police departments, local hospitals, and the media.

Data Management. The Hamilton County LEPC is examining various software packages for information management as well as creating their own programs to integrate and supplement the existing programs. Currently, the LEPC is using dBASE III plus on an IBM PS 2 to store information such as facility locations, facility emergency coordinators, and local fire departments, and CAMEO on a Macintosh II to store chemical information, such as sections 311-312 information.

In order to evaluate their own progress and solicit suggestions for improved management of Title III data from other LEPCs, the Hamilton County LEPC sent a questionnaire to every LEPC in Ohio. The responses from the LEPCs indicated a majority wanted more computer software and support. As a result, Hamilton County petitioned the SERC to increase its development of software and support for data management to LEPCs and to help fund seminars for state-wide training programs.

Outreach. The LEPC has distributed information to the public and community groups about the LEPC and Title III. Specifically, they have developed a three-page fact sheet describing the role of the LEPC, the information available under Title III, and the local emergency response plan. This fact sheet, US EPA documents, and a letter offering additional information and speakers was mailed to all community groups identified within Hamilton County. A series of newspaper articles was also published describing the LEPC and its activities.

As a result of these efforts, the LEPC has received several requests for chemical information from the public. Some community groups also have identified facilities that may not be in compliance with Title III. For the future, the LEPC is creating presentation packages and a speakers roster to be distributed to community and industry groups to improve awareness of Title III.

LEPC Organization. LEPC members are first officially recommended by the County Commissioner's Office and reviewed by the SERC for approval. The LEPC reviews and evaluates the performance of each LEPC member every two years. The purpose of the evaluation is to review the member's level of activity and commitment to the LEPC. At the end of this process, members are either recommended to be offered a continued membership or asked if they wish to resign their membership.

Prevention. Included in the planning questionnaire sent to facilities discussed in the planning section, is a very detailed self-evaluative prevention test for the facility. It includes areas such as alarm systems, chain of command information, equipment maintenance schedules, and other questions of similar nature. The check-list is intended to stimulate facilities' awareness of the need for chemical accident prevention. In the future, as resources and time permit, the LEPC wants to pursue more actively additional prevention initiatives.

Compliance. The LEPC has experienced a 90 percent compliance rate on the questionnaires that were mailed to the facilities. The universe of facilities that should be reporting has not yet been estimated. In order to identify facilities for both compliance and outreach efforts, each local fire department was sent a list of the facilities for which a questionnaire had been submitted to the LEPC. The local fire department was then asked to identify facilities in their jurisdictions that had not submitted a report. In addition, the state of Ohio has provided each LEPC with a list of all the permit-holding facilities, such as state and federal air and water discharge permits, in their emergency planning districts. Both the information from the local fire departments and the state of Ohio will be used to increase awareness of and compliance with Title III.

LESSON LEARNED

Broad Participation, Broad LEPC Capabilities. Prior to the enactment of Title III, there was no specified or required membership on an emergency planning team. As a result, many valuable representatives with valuable knowledge were left out of the planning process. The LEPC's hazard analysis subcommittee conducts a much more effective and efficient hazards analysis because its membership is very broad. The membership includes a toxicologist, facility representatives, a mechanical engineer, and first responders, as well as local planning officials. Toxicologists and health professionals can provide a clearer picture of the hazards posed by chemicals, and simplify prioritizing release scenarios. Response personnel can provide insight into previous incidents and the effort necessary to conduct a full-fledged response. Engineers and facility representatives can better assess the hazards associated with specific industrial processes and the value of prevention and mitigation systems. In addition, the inclusion of industry members will improve facility cooperativeness with the process.

In addition, many residents concerned about hazardous chemicals in their community have become active in the LEPC. Through working together on the LEPC, industry and residents have developed a cooperative, non-adversarial relationship. As a result, the emergency response plan resolves facility hazards and community concerns in a more responsive manner.

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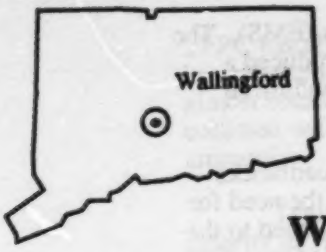

Planning
Exercises
Data Management
Hazards Analysis
Training
Outreach

WALLINGFORD, CONNECTICUT

LEPC:	30 members, including elected officials; representatives from local fire, police, civil defense, utilities, and public works, as well as facilities reporting under sections 302 and 311-312; and the Red Cross and other community groups (chair: mayor; vice-chair: American Cyanamid plant manager)
Population:	41,000
Facilities:	Large and small chemical companies and specialty metal manufacturers

Wallingford is located in New Haven County between New Haven and Hartford, Connecticut. Heavily-traveled commercial Interstate Highway 91, a freight rail line, and the Quinnipiac River run through the area. The Wallingford LEPC has established several subcommittees, such as Public Education and Educational Institutions, to address specific Title III issues.

LEPC ACTIVITIES

Planning. The Wallingford LEPC is in the process of completing its annual emergency response plan review. A current issue of concern is educational institutions — what is the need for emergency planning for chemical incidents at these locations (e.g., lab or maintenance incidents) or from incidents in the surrounding neighborhoods which could affect a school. Local educational institutions have been participating in a special LEPC subcommittee on schools, which has addressed the integration of school contingency planning with the LEPC plan, particularly in reference to evacuation and in-place protection decisions. As a result of an incident in nearby New York State in the Spring of 1990, where a school wall collapsed during a violent storm, the LEPC has been exercising an extra degree of caution before making firm decisions on appropriate locations for sheltering school children.

Exercises. In conjunction with the local American Cyanamid facility, the LEPC held a full-scale exercise in 1989 which was attended by state and local officials as well as representatives from US EPA Region I. Because the facility and the local fire department had a long history of cooperation and coordination of preparedness activities, the exercise was designed to test the other branches of the community's response system —

primarily the police department and emergency medical services (EMS). The scenario featured a ruptured tank of aqueous ammonia, which produced a toxic cloud which was to pass over a primarily commercial and industrial area.

The police department was responsible for establishing roadblocks and conducting notification of potentially affected businesses of the need for in-place protection and/or evacuation. Police cruisers were dispatched to the areas in the path of the cloud, and were provided with index cards for a building representative to sign and indicate the time, so that the length of the operation could be estimated. In return, each building representative was provided with a statement that described evacuation and/or in-place protection options.

Meanwhile, emergency medical personnel treated and transported the "contaminated" victims to local hospitals via ambulances. During the in-depth critique of the exercise, the primary concern raised was with the proper decontamination of not only the victims, but also ambulances and hospital treatment areas. These issues have been addressed by revised EMS protocols, and the two local hospitals and the ambulance service have been in the forefront of the planning for an exercise later this year. This exercise, scheduled for October, 1990 at the Ametek facility, will also involve an ammonia release.

Data Management. The Wallingford Fire Department uses the Computer-Aided Management of Emergency Operations (CAMEO) software system, designed by US EPA and the National Oceanic and Atmospheric Administration (NOAA), to assist local emergency planners and responders with Title III activities. At this time, CAMEO provides Material Safety Data Sheet and storage location information on hazardous chemicals to the fire department and dispatcher. Tier I and Tier II information is accepted from facilities for emergency planning purposes and is available at the fire department, city hall, and the local library. For emergency response, the LEPC has developed Chemical Information Inventories, which identify each hazardous substance by DOT class, Tier I form hazard class, Occupational Safety and Health Administration hazard categories, National Fire Protection Association section 704 labeling standards, and Paint Industry standards, in order to provide a comprehensive rating system for the hazards associated with each substance, and to identify the personal protective equipment needed during a response action.

Hazards Analysis. The LEPC has developed vulnerable zones using four separate methodologies — the National Response Team's Hazardous Materials Emergency Planning Guide (NRT-1), the Department of Transportation's Emergency Response Guidebook, CAMEO, and the ToxChem software system used by local chemical companies. The LEPC determined that the most dangerous release scenarios involved ten-mile radius zones of vulnerability, i.e., they could conceivably have impacts beyond the municipality of Wallingford. The hazards analysis has prompted prevention projects at local facilities, including moving storage tank locations, switching to less hazardous chemicals, and introducing engineering controls (such as improving the protection of tanks to prevent vehicles from backing into them and installing diking to contain a release or spill). The

LEPC has also been concerned with transportation incidents that could result in a release at a fixed facility. In 1981, for example, a train derailment almost resulted in a serious incident when a derailed car narrowly missed a collision with a steel annealing furnace building which uses hydrogen and ammonia.

Training. Firefighter training on hazardous materials response is a priority in Wallingford. The entire Wallingford Fire Department, consisting of 60 paid and 150 volunteer firefighters, have been trained to "operational level," as regulated under SARA section 126, which requires local emergency responders to be provided with training in understanding chemical hazards and proper safety procedures. Sixteen firefighters have received additional training to qualify as hazmat technicians; four of these have been certified by the state after undergoing a 132-hour training program sponsored by the Connecticut Commission on Fire Prevention and Control, and receiving specific training with the hazardous substances in Wallingford. The local American Cyanamid facility has a 7-member hazmat team which responds to incident involving Cyanamid products in much of southern New England. Recently, during a gasoline tanker truck roll-over incident, the American Cyanamid in-plant fire brigade was called in to assist local firefighters in applying foam.

Outreach. The LEPC developed a citizen's brochure on Title III for distribution to all households in the community as part of an aggressive approach to educating the public on chemical emergency issues. The brochure provides specific information on how citizens can prepare for and respond to notification of an evacuation or in-place protection for a chemical emergency, including a map of the town showing major facilities, transportation routes, and schools for evacuation purposes. It also describes how citizens can get access to facility information under the right-to-know provisions of Title III and the Wallingford emergency response plan.

In 1989, the LEPC sent an information packet on Title III reporting requirements to 500 area businesses identified from various sources as likely to be subject to Title III. The LEPC believed that many smaller businesses might be unfamiliar with, or unaware of, the requirements of Title III. The mailing identified several new facilities subject to section 302, which have subsequently not only reported their extremely hazardous substances, but also joined the LEPC. This effort has also instigated a reevaluation of hazardous chemical policies at other facilities, and after this analysis, several facilities altered existing process and inventory procedures (e.g., by reducing on-site inventories), thereby reducing the risk to the community. The Public Education subcommittee is developing an audio-visual program to assist LEPC members in making presentations to industry and other organizations on Title III and the role of the LEPC.

LESSONS LEARNED

LEPC Membership Should be Inclusive, Not Exclusive. Wallingford LEPC industry participation is not limited to those facilities that are involved in emergency planning under SARA section 302, but also includes several facilities that only report under sections 311 and 312, but nevertheless want to be involved in LEPC activities. The LEPC has established a number of ad-hoc subcommittees to serve as workgroups in addressing specific Title III issues, such as school contingency planning described above, and has invited organizations outside the LEPC to participate, such as the public school system.

Industry Can be an Equal Partner in Title III Activities. The LEPC believes that many emergency preparedness and prevention initiatives fail to recognize the important role that industry can play in fulfilling their objectives. Any past adversarial relationships between local government and industry must be replaced with communication to rebuild trust and thereby work to ensure the success of Title III efforts in the community. In Wallingford, industry plays a major role by participating in the planning process and exercise development, by maintaining a fully-trained hazmat team and response equipment, and by distributing Title III-related literature. For example, the BYK-Chemie USA and Bristol Myers LEPC representatives drafted the materials for the 1989 outreach project to small businesses.

Furthermore, the Connecticut Emergency Resource Manual, published by the Connecticut Business and Industry Association in connection with the State Emergency Response Commission, serves as a means of quickly identifying response resources available at nearby facilities in the event of a hazardous materials incident. BYK-Chemie USA, Allegheny Ludlum Corporation, Ulbrich Stainless Steels, and American Cyanamid are represented on the Wallingford LEPC and have agreed to provide specific technical expertise and response equipment in this effort. Each has provided a list of available equipment and expertise, as well as a business and 24-hour phone number and an emergency contact for the manual, which has been distributed by the SERC to all Connecticut LEPCs and fire departments.

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LEPC Organization
Public Outreach
Data Management
Inter-jurisdictional Coordination

OUACHITA PARISH, LOUISIANA

LEPC:	18 members, including fire, law enforcement, toxicological, health, emergency management, and general services officials, Red Cross and media representatives, the Mayor of the parish seat, a State Senator and a representative, industry officials, attorneys, officials from State and Federal agencies, including the US Coast Guard, and representatives from the Lions Club and the Chamber of Commerce. The Chair is theDirector of the Parish Civil Defense Agency.
Population:	142,000
Facilities:	Approximately 215, ranging from chemical manufacturing companies to small businesses such as service stations, and to a number of farms and agricultural operations

Located in the northeast part of Louisiana, Ouachita Parish is predominately agricultural, though about a third of its population lives in Monroe, the parish seat. Significant contingency planning considerations include an interstate highway, a railroad line, and the navigable Ouachita River. A fish preserve and two wildlife areas lie within the parish bounds, as does one of the nation's largest manufacturers of anhydrous ammonia, and two major anhydrous ammonia distributors. Also, a major paper factory is located there.

Given the amount of production and use of ammonia within the parish, the LEPC and the emergency response community have paid considerable attention to the possibility of an accidental release. Transportation-related spills of ammonia have occurred several times in recent years, and, indeed, two separate incidents involving barges on the Ouachita River have led to significant LEPC action and to the improvements of hazardous materials response operations throughout the parish.

LEPC ACTIVITIES

LEPC Organization. From its origin in September, 1987, the Ouachita Parish LEPC has been characterized by steady leadership, clear guidelines for LEPC members' involvement, and candor in its work. Starting with an existing, well-developed all-hazards contingency plan, and relying on intensive orientation and training of all its members, the LEPC was able to move quickly towards accomplishing its assigned mandates. At the

committee's second meeting, objectives were discussed and agreed on, and operating procedures were adopted. Additionally, four standing subcommittees were formed:

- Information Management;
- Hazards Analysis;
- Capabilities Analysis; and
- Plan Review.

Continuing guidance has been given to subcommittee members in the form of brochures, articles, and specialized training sessions. With such a strong emphasis on organizational principles, the LEPC plan began to grow. One major factor stands out in the success to date of the LEPC's working together: the members seem to realize that Title III depends on a slow, building process, requiring patience and persistence.

From the beginning, every LEPC member was given assignments, and was expected to join actively in the LEPC's continuing work. The committee was able to finish and submit its draft contingency plan in September, 1988; the plan was incorporated as an annex to the Parish All-Hazard Plan.

The LEPC has functioned mostly on a volunteer basis. With the exception of computers purchased by the Police Jury (which is the Louisiana equivalent of a county commission) for the parish fire department, and state-level training for response personnel, no additional funds have been sought or spent to support the committee's work.

Public Outreach. Initially, in Ouachita Parish, there was little interest in chemical safety and the new era of Title III; natural disasters such as tornados formed the center of public concern. Realizing that its ultimate success would depend in part on changing this attitude, the LEPC began public information work early in its existence. For example, media representatives were recruited and retained as committee members (indeed, at present, there are three).

First, arrangements were made with the local radio and television stations for public service announcements to be broadcast. These brief messages outlined the new federal law, commented on the nature and presence of hazardous chemicals, and explained the existence of the new LEPC. Later on, interviews of the committee chair were set up, both on radio and television. Two separate half-hour television programs were aired, explaining Title III and the local parish activities in detail.

In another approach, the Ouachita Parish LEPC prepared and sent informational letters to all the schools and civic organizations in the Parish, again, explaining the law and the importance of hazardous chemicals contingency planning. Following up on the school letters, officers of the three parish fire departments developed and presented chemical safety programs to teachers and students. Also, members of the LEPC presented similar offerings at civic club meetings. All this effort eventually led to the establishment of a separate public information subcommittee to plan a long-range educational effort.

To date, the high-point of this effort has been the LEPC's sponsorship of a Chemical Awareness Week, held parish-wide during the week of October 2-6, 1989. The Chemical Awareness Campaign planning work began that summer, and the subcommittee drafted a brochure for distribution to households throughout the parish. The campaign was based on the premise that since "society today is dependent on chemicals, it is important for people to be aware of precautions to take when accidents occur."

LEPC members prepared a "chemical releases" fact sheet for general distribution, summarizing all accidental chemical releases for the past five years. While most of these incidents were minor, the sheet was meant to remind Parish residents that even in a relatively tranquil part of Louisiana, hazardous materials were not only present, but sometimes leaked, burned, or exploded, and threatened lives and the environment.

Also, members worked on a series of nine special public service announcements to be broadcast during the Chemical Safety Week. Ranging in length from fifteen to sixty seconds, these announcements concentrated on practical advice on what steps to take immediately following an accidental release. They covered informal respiratory protection, in-place protection, and orderly evacuation. At the end of each announcement, the following sentence was read: "[T]his message from your Local Emergency Planning Committee."

Additionally, a three-page news release was prepared, explaining the intent of Title III, and detailing the history, purpose, and work of the LEPC. Of special focus in the text was the announcement of the mailing of the brochure, *What to Do in Case of a Chemical Emergency*.

Official support for the campaign was given by the parish and its two incorporated municipalities. Proclamations announcing the Chemical Awareness week were issued by the Mayors of Monroe and West Monroe, and by the Ouachita Parish Police Jury . Each proclamation stressed the presence of hazardous chemicals, the need for the public to inform itself, and the work of the LEPC.

The Louisiana Power and Light Company underwrote the publication and mailing of the chemical emergency brochure. Accompanied by a letter from the LEPC, the brochure was mailed separately to all 68,000 customers of LP&L in the parish - no cost was incurred by any governmental agency. The letter urged residents to take a few minutes to read the material in order to increase their awareness of what to do in case of a chemical release. *What to Do in Case of a Chemical Emergency* was printed in two colors on glossy paper. The text echoed the main points of the public service announcements:

- What if you are told to protect your self from breathing hazardous chemicals?
- What if you are told to remain indoors for in-place protection?
- What if you are told to evacuate?

- What should you do if you know there is a release and it's coming toward you?

At a press conference held at the start of Chemical Awareness Week, LEPC members and local officials were joined by representatives of the US EPA and the State of Louisiana. It was noted that this campaign was the first of its kind to be organized in Region VI. Shortly afterwards, the New Orleans LEPC used it as a model for its own campaign.

Currently, following up on the October, 1989 events, the LEPC is preparing a 1991 calendar containing chemical safety information for free distribution in the parish. Also, members are preparing written material for distribution to all school children with the intention that the children will take the material home to their parents. Further, the LEPC is producing a videotape for showings at public meetings.

Data Management. To better manage all the information gathered under Title III, the LEPC turned its attention to establishing a local repository agency, and to the acquisition of appropriate computers and software. Accordingly, a special subcommittee was formed to draft specific procedures for the repository's operation. Rules and reporting forms were drafted and presented to the LEPC for adoption. The LEPC decided to mail copies of the adopted rules and forms to all facilities that had submitted Tier II forms previously in order to foster better understanding of the LEPC's expectations. Reporting a release with the parish forms is voluntary, but the LEPC views the procedures as vital to its operation.

With help from the Louisiana State Police, the subcommittee completed its work, and the LEPC adopted its report without opposition. Subsequently, the Ouachita Parish Fire Department was selected as the repository agency, with the concurrence of the two municipal fire departments. The Parish Police Jury purchased IBM-compatible computers for use in managing the data, and the three departments began a coordinated effort to develop common information capabilities. The LEPC continues to monitor the repository's operations, providing guidance whenever requested.

In July, 1988, in order to ensure that the chemical reporting practices would be uniform throughout the parish, the LEPC sent an explanatory letter to facilities potentially subject to Title III requirements. Enclosed with the letter were copies of the repository's operating rules regarding public access to facility submissions adopted by the LEPC. Also, the three LEPC reporting forms were enclosed:

1) Initial Release Report: to be filled out by fire personnel when an incident is called in. Facilities were instructed to notify the repository agency and the SERC, as well as the local fire department following an accidental release;

2) Chemical Information Request: to be completed by anyone asking for material under the community right-to-know provisions. A courtesy copy of this form is mailed to the facility in question; and

3) Repository Agency Query Letter: to be sent to facilities notifying them that information has been requested that is not on file, and that it must be supplied within 30 days.

The LEPC, concerned that it might be imprudent to allow the widespread dissemination of confidential chemical location information, agreed that such information would be kept sequestered unless facilities agreed to its release.

Also, concerned about the accuracy of the data collected under the various reporting requirements of Title III, the Ouachita LEPC began a process of annual cross-checks of data with the Louisiana State Police Right-to-Know Unit. Repository agency personnel check current reports with those from prior years, and send notices to delinquent facilities and to those whose reports are questionable.

By April, 1990, the LEPC had decided to make a further improvement in its information management services. Having reviewed the East Baton Rouge/Exxon automated reporting system, the committee chose to adopt it for use throughout Ouachita Parish. Free diskettes for Tier II filing requirements would be supplied to any owner or operator who requested them. A memorandum was sent to facilities throughout the parish advising them of this time-saving offer, and announcing a series of training workshops for facility personnel; the floppy diskettes (requiring IBM-compatible PC's and software) are to be mailed annually to the repository agency. The workshops last about one hour and were scheduled by appointment, starting with the parish's larger industries. This automated system is expected to ease the workload of the parish fire department considerably when fully implemented.

Inter-jurisdictional Coordination. In analyzing chemical incident responses, the committee noted the ever-present traffic of hazardous materials on the parish's interstate highway, the railway, and the Ouachita River. In March, 1988, the LEPC organized an exercise simulating the leak of a chemical product from a truck in a parking lot in Monroe. The written critique was generally favorable, but noted minor communications, coordination, and command problems: after all, several independent jurisdictions suddenly were forced to act together.

Just a little over a year later in April, 1989, the real thing happened, this time on the river as two barges carrying anhydrous ammonia ran into two separate bridges, resulting in a minor leak. Initial inter-jurisdictional confusion hampered the response efforts.

Then, on August 10, 1989, another barge crashed into a river bridge releasing anhydrous ammonia gas into the air. This time, an evacuation was ordered, and the local newspaper featured a special story titled, "Anhydrous Ammonia a Suffocating Killer," explaining the nature and hazards of the chemical. The LEPC met to review this incident as the real test of its contingency plan and its training and exercising program. A written report, prepared as the result of the meeting, concluded with ten recommendations to improve future response actions, as well as the contingency plan itself. The final recommendation read as follows:

"Consideration should be given to establishing a multi-agency HAZMAT Team, combining the equipment and trained personnel that already exists within the Parish ..."

The Ouachita LEPC agreed to serve as the forum for the study and consideration of a unified response approach. Initially, the committee organized a Hazardous Materials Task Force, composed of parish and municipal police and fire agencies, the State Police, and the Parish Civil Defense office. The task force first met in August, 1989, and has been working together since then to develop guidelines, procedures, and criteria for response force membership and training (following the new OSHA regulations). Several prospective members are qualified hazardous materials response instructors. LEPC members are confident that their Task Force will soon grow into an effective operational team — a positive expression of continuing contingency planning and analysis.

LESSONS LEARNED

Money Alone Does Not Make Title III Work. Speaking for her LEPC, the chair has noted two keys to successful Title III implementation. The first, in her words is "that money does not, will not, should not fix SARA Title III. If anything, money introduced into this program, except for training, will destroy what it is intended to do. Everyone who is by law involved in SARA Title III should do his part. No one should be able to pay someone to take his responsibility." As police, fire, and hospital personnel are learning, the objectives and activities of Title III are "part of what we are supposed to have been doing all along ...."

Success Involves Commitment, Patience, and Persistence. The second key lies in the understanding that chemical safety and contingency planning are long-range activities: there are few overnight successes; LEPC membership involves commitment, patience, and persistent effort in the "slow building process" towards full local knowledge and capability.

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More Successful Practices

Additional Successful Practices in Title III Implementation technical assistance bulletins are available from your Regional Chemical Emergency Preparedness and Prevention Coordinator (see the listing on the following page), or call the Emergency Planning and Community Right-to-Know Information Hotline at (800) 535-0202, or (202) 479-2449 in Washington, DC. The following bulletins are currently available:

Successful Practices #1
Doc. # OSWER-89-006.1, January 1989.

- State of Kansas
- Washtenaw County, Michigan
- Butler County, Kansas
- Jefferson County, Kentucky

Successful Practices #2
Doc. # OSWER-89-006.2, August 1989

- Calhoun County, Alabama
- Pampa, Texas
- State of Wisconsin
- Cuyahoga County, Ohio
- Racine County, Wisconsin
- State of Idaho

Successful Practices #3
Doc. # OSWER-89-006.3, December 1989.

- Woodbury County, Iowa
- State of Virginia
- Fairfax County, Virginia
- Pierce County, Washington

Successful Practices #4
Doc. # OSWER-90-006.1, March 1990.

- New York, New York
- El Paso County, Colorado
- Alexandria, Virginia
- State of Maine

Successful Practices #5
Doc. # OSWER-90-006.2, June 1990.

- Tinker Air Force Base, Oklahoma
- State of Connecticut
- Cumberland County, Maine
- Wyandotte County, Kansas

Successful Practices #6
Doc. # OSWER-90-006.3, September 1990.

- State of Ohio
- Hamilton County, Ohio
- Wallingford, Connecticut
- Ouachita Parish, Louisiana

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States by Region

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10 - Alaska
9 - Arizona
6 - Arkansas
9 - California
8 - Colorado
1 - Connecticut
3 - Delaware
3 - D.C.
4 - Florida
4 - Georgia
9 - Hawaii
10 - Idaho
5 - Illinois
5 - Indiana
7 - Iowa
7 - Kansas
4 - Kentucky
6 - Louisiana
1 - Maine
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8 - Utah
1 - Vermont
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9 - American Samoa
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